To: Kramek, Niva[kramek.niva@epa.gov]

From: Diane Radnoff

Sent: Tue 6/28/2016 8:07:45 PM

Subject: RE: Nice to meet you / follow-up from AlHce

Niva, I am so sorry to take so long to get back to you. We did a detailed literature review (provided some references below to start with), really there was not a lot of exposure data that also provided information on the lead content in the paint. Please note that we particularly focused on work where they reported lead contents less than 5%. Hope this is helpful.

International programme on Chemical Safety (IPCS) Inorganic lead, Environmental Health Criteria 165, World Health Organization, Geneva, http://www.inchem.org/documents/ehc/ehc/ehc165.htm, accessed on January 15, 2015 (1995)

Kessler, R. Lead-Based Decorative Paints: Where are they Still Sold—and Why?, Environ. Health Perspect., DOI:10.1289/ehp.122-A96, A97-103 (2014)

US National Library of Medicine, Hazardous Substances Data Bank, Lead, Elemental, http://webwiser.nlm.nih.gov/getSubstanceData.do?substanceId=283&displaySubstanceName=Lead, accessed January 15, 2014

IARC Inorganic and Organic Lead Compounds, IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, Volume 87, IARC, Lyons, France (2006)

OSHA, Standard Interpretation Letter dated March 1, 1999, accessed online at http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=22701 January 3, 2013

WorkSafeBC Lead-Containing Paints and Coatings, Preventing Exposure in the Construction Industry, ISBN 978-0-7726-6493-8 (2011)

Cal/OSHA, Construction Safety Orders, Lead, Section 1532.1, Title 8 California Code of Regulations, amended March 2007

Johnson, S.; Saikia, N.; Sahu, R. Lead in Paints, Report PML/PR-34/2009, Centre for Science and Environment, India (2009)

Clark, C.S.; Rampal, K.G.; Thuppil, V.; Roda, S.M.; Succop, P.; Menrath, W.; Chen, C.K.; Adebamowo, E.O.; Agbede, O.A.; Sridhar, M.K.C.; Adebamowo, C.; Zakaria, Y.; El-Safty, A.; Shinde, R.; Yu, J. Lead Levels in New Enamel Household Paints from Asia, Africa and South America, Environmental Research, 109:930-936, (2009)

Kumar, A. Lead in New Decorative Paints, accessed online at http://www.ipen.org/ipenweb/documents/work%20documents/global_paintstudy.pdf, March 26, 2013 (2009)

Gottesfeld, P.; Kuepouo, G.; Tetsopgang, S.; Durand, K. Lead Concentrations and Labeling of New Paint in Cameroon, JOEH, 10:243-249 (2013)

Booher, L.E. Lead Exposure in a Ship Overhaul Facility during Paint Removal, AIHAJ, 49(3):121-127 (1988)

Zedd, H.C; Walker, Y.P; Hernandez, J.E.; Thomas, R.J. (1993)Lead Exposures during Shipboard Chipping and Grinding Paint Removal Operations, AIHAJ, 54:7, 392-396 (1993)

National Association of Home Builders (NAHB) Worker Exposures to Airborne Lead during Residential Remodeling Activities, Results of Five Site Visits (1997)

National Institute of Occupational Safety and Health (NIOSH) Protecting Workers Exposed to Lead-Based Paint Hazards, A Report to Congress, edited by A. Sussell (1997)

McGlothlin, J.D.; Mattorano, D.; Harney, J.M.; Habes, D.; Cook, C.; Roegner, K. NIOSH Health Hazard Evaluation, Astoria Metal Corporation, Hunters Point Naval Shipyard, San Francisco, California, Report HETA 97-0196-2755 (1997)

Goldberg, M.; Clark, N.L.; Levin, S.M.; Zuckerman, N.; Doucette, J.T. An Assessment of Lead Controls for Torch Cutting and Rivet Removal on Steel Structures, Applied Occupational and Environmental Hygiene, 15:5, 445-452 (2000)

Brumis, S.; Scholz, P.; Materna, B. Lead Exposure During Hot Cutting of Stripped Steel, Applied Occupational and Environmental Hygiene, 16:5, 502-505 (2001)

Reames, G.J.; Brumis, S.G.; Nicas, M. Task-Specific Lead Exposure during Residential Lead Hazard Reduction Projects, Applied Occupational and Environmental Hygiene, 16(6):671-678 (2001)

Scholz, P.F.; Materna, B.L.; Harrington, D.; Uratsu, C. Residential and Commercial Painters Exposure to Lead during Surface Preparation, AIHAJ, 63:22-28 (2002)

Ostiguy, C.; Cordeiro, R.; Bensimon, G.; Baril, M. Occupational Lead Exposure in Quebec and Blood Lead Levels from January 2001 to December 2008, Report R-713, Institut de recherché Robert - Sauvé en Santé et en Sécurité du Travail (2011)

OSHA 29 CFR 1926.62, Lead Exposure in Construction; Interim Final Rule—Inspection and Compliance Procedures, accessed online at https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_id=1570&p_table=DIRECTIVES February 2, 2015 (1993)

Zhu, J.; Depersis, R.; Pavelchak, N.; London, M.; Gibson, A.M.; Franko, E. Case Study: An Assessment of Metal Recycling Worker Lead Exposure Associated with Cutting Uncoated New Steel Scrap, JOEH, 6:D18-D21 (2009)

Choe, K.T.; Trunov, M.; Menrath, W.; Succop, P.; Grinshpun, S.A. Relationship between Lead Levels on Painted Surfaces and Percent Lead in the Particles Aerosolized During Lead Abatement, Applied Occupational and Environmental Hygiene, 17:8, 573-579 (2002)

Rodrigues, E.G.; Virji, M.A.; McClean, M.D.; Weinberg, J.; Woskie, S.; Pepper, L.D. Personal Exposure, Behavior and Work Site Conditions as Determinants of Blood Lead Among Bridge Painters, JOEH, 7:2, 80-87 (2009)

Regards

Diane Radnoff, P.Eng., M.Eng., CIH

Acting Director, OHS Policy

OHS Policy and Program Development

Alberta Labour

From: Kramek, Niva [mailto:kramek.niva@epa.gov]

Sent: Wednesday, June 08, 2016 4:23 PM

To: Diane Radnoff

Subject: Nice to meet you / follow-up from AlHce

Hi Diane -

It was great meeting you at AIHce in Baltimore and I really enjoyed your presentation on occupational lead exposure! I am working on a proposed regulation on two chemicals used in paint and coating removal (methylene chloride and N-methylpyrrolidone) and one thing we are concerned about is a potential increase in exposure to lead paint if workers switch from using

chemical paint removers to other methods (such as sanding or abrasive blasting). I know your presentation had a lot of information on exposure to lead that might be in the metal materials being worked with, but I was wondering if you had information or knew of any contacts on current occupational lead exposure as a result of various paint removal methods. We've been working with US OSHA on this, and while they have standards for worker protection, there aren't a lot of data we could find on actual exposures.

Thanks again and I really enjoyed hearing about your work!

Niva

Niva Kramek

Existing Chemicals Branch, Chemical Control Division

Office of Chemical Safety and Pollution Prevention

US Environmental Protection Agency

202-564-2897

Kramek.niva@epa.gov

This email and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed. If you have received this email in error please notify the system manager. This message contains confidential information and is intended only for the individual named. If you are not the named addressee you should not disseminate, distribute or copy this e-mail.